

predetermined force of an internal spring to produce a spark when axially moved;

a thumb actuator located at said housing endcap and movable with respect thereto, said thumb actuator operative to cause opening of said outlet valve and axial movement of said reciprocative plunger to thereby produce a controlled flame;

43 at least one actuator spring contributing a second predetermined force of at least about five pounds to a total force required to operate said thumb actuator;

a pivotal lever extending between said outlet valve and said thumb actuator; and

whereby said pocket lighter [being] is constructed and arranged such that said total force [at least ten pounds of force are] required to operate said thumb actuator is at least ten pounds, but only a force exceeding said first predetermined force is necessary to cause ignition of said igniter device.

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REMARKS

Favorable reconsideration and allowance of the present application are respectfully requested.

This application was originally filed with a total of twenty-four (24) claims. Of these, claims 2-3, 5-6, 10-11, 13-20, and 22-23 were withdrawn from consideration as being directed to a non-elected species. By the above amendment,

nonelected claims 14-20 have been cancelled without prejudice. It is believed that the remaining nonelected claims should be allowed as being dependent on allowable base claims.

Claims 1, 4, 7 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 5,854,530 to LaForest in view of U.S. Pat. No. 4,442,945 to Sandhaus. In the alternative, claims 1, 4 and 7-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over LaForest alone. Claims 12, 21 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over LaForest and Sandhaus, and further in view of U.S. Pat. No. 4,089,636 to Goto. Particularly as now presented, Applicant's claims are believed to be fully distinguishable over the applied art.

As described in the present application, it has been found that the child resistance characteristics of a pocket lighter can be enhanced if at least about ten pounds of force are required to depress the thumb button. Prior art lighters, such as illustrated in Figures 1 and 2 of the drawings, include igniters having springs of much lower force. For example, only about 4-5 pounds of force have been required to achieve ignition in such lighters.

One means of enhancing the force required to ignite the lighter is to equip the igniter device with an internal spring

having a higher spring constant. (Or, the igniter device can be equipped with additional springs which enhance the spring force of the igniter.) Springs located inside the igniter device, however, are not replaceable. In addition, the use of springs having a higher spring constant within the igniter device generally adds to the igniter's striking force. This will significantly reduce the operational life of the igniter device, and thus the lighter as a whole.

LaForest, the primary reference cited by the Examiner, is typical of such prior art. As can be seen, resistant spring 50 is situated to contact the bottom 60 of inner telescopic member 14. When inner telescopic member 14 comes into contact with resistant spring 50, the amount of force required to continue to depress member 14 is suddenly increased. In addition, however, the piezoelectric mechanism will have a greater striking force as a result of resistant spring 50. This is described at column 4, lines 39-52 as follows:

Immediately after the release of lugs 34, compressed impact spring 30, with the aid of compressed resistant spring 50 drives plexor 28 towards the impact pad and strikes same.

It will be appreciated that this increased striking force will substantially reduce the operational lifespan of the igniter.

In contrast, the invention set forth in independent claims 1 and 21 yields a lighter having the desired child resistance

qualities without affecting the operational life of the igniter device. This is accomplished by providing an igniter device having an internal spring with a conventional spring constant (e.g., 4-5 pounds). A separate actuator spring is provided to contribute at least about five pounds of a second predetermined force to a total force required to operate the thumb actuator. Due to this arrangement, only a force exceeding the first predetermined force remains necessary to cause ignition of the igniter device. This "decoupling" of the igniter force from the additional force used for child resistance is believed to provide substantial advantages in comparison with the prior art.

It can thus be seen that applicant's independent claims 1 and 21 are fully distinguishable over the LaForest reference cited by the Examiner. The secondary references to Sandhaus and Goto do nothing to overcome the deficiencies of LaForest.

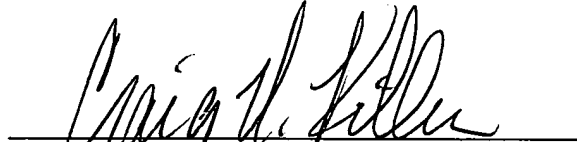
Applicant's dependent claims recite further aspects of the inventive subject matter set forth in the independent claim from which they depend. Thus, each dependent claim is believed to be fully patentable in its respective combination. For the sake of brevity, however, the dependent claims will not be addressed in detail.

Inasmuch as all outstanding issues raised by the Examiner having been addressed, it is respectfully submitted that the

present application, including claims 1-6, 9-13 and 21-24, is in condition for allowance, and action to such effect is earnestly solicited. The Examiner is invited to telephone the undersigned should any minor issues remain after consideration of the above amendment, to permit early resolution of same.

Respectfully submitted,

NELSON MULLINS RILEY & SCARBOROUGH



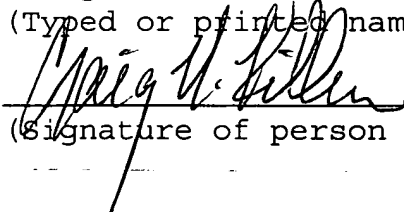
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I hereby certify that this correspondence and any referenced attachment and/or fee are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231, on February 1, 2001.

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